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FLEXIBILITY OF FIXED BASE OPERATIONS HELD VALUABLE NATIONAL ASSET

The variety in the fixed base operator's business can be a definite asset as the nation's economy feels the full impact of military purchases and additional restrictions upon civilian enterprises may become necessary, Civil Aeronautics Administrator Charles F. Horne told delegates to the annual meeting of the National Aviation Trades Association at Fort Worth last Friday. "I think this should be high in your thinking, and you should be prepared to pass, or kick or run, as the situation requires," Horne told the NATA group.

Noting that most of the "self-seeking opportunists" of the GI flight training era have now gotten out of the aviation business and that the better operators are now doing well, Horne suggested that business relationships gained during the present emergency conditions should be solidified and new customers kept ready for continuing sales in peacetime.

The administrator noted that "grass roots" aviation is likely to fare much better in any future emergency than it did during World War II because of CAA's actions in (1) establishing Air Defense Identification Zones and Airmen Identification Cards, (2) helping obtain approval for the manufacture of 3,500 civilian planes this year, despite material shortages, and (3) establishment of the importance of aviation's role in civil defense programs.– American Aviation Daily, September, 1951.

NATA officers elected for 1952 included Charles Lynch, Belgrade, Montana, 7th Region Vice President, and Harland Herrin, Helena, Montana, Western Vice President.

ALL AVIATION TO SHIFT TO NAUTICAL MILES IN JULY 1952

July 1, 1952 is the date when all U. S. aviation will shift to the use of the nautical mile for standard distance and speed measurement. This may simplify the work of the international airline pilot or military navigator but will add one more problem for the private pilot or flying farmer and thus further peculiarize aviation from other forms of U. S. transportation. Statute miles must be divided by 1.15 to give nautical miles. Oklahoma Aviation Commission News, October, 1951.

AIRCRAFT RECALL DURING CIVIL DEFENSE ALERTS

One of the urgent problems facing civil defense officials is the grounding of all civil aircraft in case of an aerial attack by an enemy. Friendly civil planes will show up on radar scopes just the same as the enemy planes and thus cause considerable confusion and possibly allow enemy planes to reach their targets unintercepted.

Planes with radio will be warned and ordered to land by that method but planes without radio equipment will have to rely upon visual signals. Tentative plans call for using black smoke (from oil and or waste fire), preferably placed near the wind tee or segmented circle in daytime and red fusee flares at night. These items should be added to the airport operator's list of "things to get" to be prepared in case of an alert. Oklahoma Aviation Commission News, October 1951.

NEW CESSNA AIRPLANE, "308", BEING TESTED AT WICHITA

Cessna Aircraft Company, Wichita, Kansas, is testing a new model, called the Cessna "308".

Powered by an 8-cylinder, direct-drive Lycoming engine of 375 h.p., the "308" is said to be capable of carrying a 10 0 lb. payload a distance of 800 miles.

It has a 47 ft. span, carried four persons (or pilot and attendant and two litter patients), and has a gross weight of 4 200 lbs.

Other features of the new military ship are: exhaust augmentor tubes to improve thrust and cooling; constant speed propellor, spring steel, fixed landing gear; hilift flaps, and a full set of flight instruments.—Iowa Aviation Bulletin.

STRONG DOWN DRAFT BLAMED IN UAL DC-3 ACCIDENT

"The severe down draft encountered" by a United Air Lines DC-3 was cited by the Civil Aeronautics Board today as the probable cause of the crash at Fort Wayne, Ind., on April 28, 1951, in which eleven persons were killed. Thunderstorms existed in the Fort Wayne area but indications were that flights then in the air could make safe landings prior to the storm's arrival. During the landing approach the pilot was warned that wind velocity had increased to 65 miles per hour with gusts to 85 miles per hour. The approach was abandoned and the plane encountered the forward edge of the squall line where it was subjected to a severe down draft from which recovery could not be made. American Aviation Daily, October 22, 1951.

ONE-MAN ROCKET POWERED HELICOPTER DEVELOPED

Rotor Craft Corp., Glendale, Calif., has developed a one-man midget helicopter weighing less than 100 pounds. Developed under contract to the Office of Naval Research, the "Pinwheel," as the company calls it, consists of a small two-blade rotor and fuel supply which are strapped to the "pilot's" body. Power is supplied by liquid rocket motors located at the blade tips. American Aviation Daily, October 1951.

PILOT LONGEVITY

E. L. Stephenson of Associated Aviation Underwriters, in a letter to American Aviation, made the following observation relative to probable longevity of pilots. We thought perhaps you might find his comments of interest.

"Why do some pilots grow old and others die young?" Let's compare the two groups and see if we can set up a fairly accurate yardstick for determining in advance the probable longevity of pilots.

"Most of the hundreds of old pilots we have known for twenty years have certain common characteristics. First of all they are good men. Apparently you have to be a pretty good man before you can be a safe pilot. It takes character, judgment, mental stability, and poise. In the air as on the sea, you deal with fundamentals and you play for keeps. You have to be an uncomplicated person to think straight. The elements teach you to respect them and no man who has faced them for long can be other than quietly humble."

"Since those qualities are found in most old pilots we believe they are necessary for longevity. Pilot skill is secondary because a man of good judgment will know his own ability and will know what he faces in a given situation and will never bite off more than he can chew. Abraham Lincoln would have made a good pilot. Mussolini would probably have become a statistic."

"Of course there are a few old timers who are fugitives from the law of average. Every once in a while we bury one of them because his luck ran out."

"Barring the unavoidable accidents (if there is such a thing) most of this type of pilot also have certain characteristics in common. Most of them started flying because they had an inferiority complex and they thought there was adventure and glamour in flying that inflate their ego and make them feel important. They became King for an hour and an insurance company statistic for Eternity." This inferiority complex is back of all "showing off" and is the greatest pilot killer of all. It makes them try to get thru with impossible weather when the boss demands it, and dozens of other silly things."

"Many of them have complicated twisted mental processes and unsound judgment and are emotionally unstable. Often they do not fully understand a particular flying problem and therefore are not competent to judge their own ability or lack of ability to solve it. They are cocky and talkative and like to let people know that they are pilots. They may actually know a lot about various phases of flying and may have phenomenal coordination and flying skill and may have got out of lots of tight spots that a man of better judgment would not have been in. The plain truth is that a lot of them just do not measure up as men. They lack stability and are quite common. Unfortunately, flying attracts too many of that type. You can teach a monkey a high degree of skill in handling the controls of a plane and he might even pass a check ride but would he deliver when the chips were down? As aviation underwriters we have to separate the men from the monkeys—or go broke. These ideas have kept us in business for twenty years. We hope they will be useful to you." Wyoming Aviation Newletter

CARBURETOR HEAT Remember "Carburetor Ice has cooled off many a hot pilot!"—Wyoming Aviation Newsletter.

TURBINE POWERED LIGHTPLANES FORECAST FOR NEAR FUTURE

The application of turbine power to personal aircraft in the near future was predicted today by Carl Bachle, vice president of Continental Aviation Engineering Corp., which is developing a series of low powered turbine engines obtained from the French Societe Turbomeca under license. Speaking before the Aero Club of Michigan, Bachle said he does not expect gas turbines to supplant piston engines entirely in personal aircraft, but that turbines will make it possible for industry to build more comfortable, safer and faster lightplanes at a cost within the reach of today's lightplane owners.

Continental believes that the utility type personal plane, such as the four place executive plane, offers the most logical market for small turbines. For such planes in the 200-300 mile per hour speed class, Bachle suggested that the ducted fan type of turbine will make possible a 60% increase in speed and increase comfort by eliminating engine noise and vibration. Such planes, with cabins pressurized by air bled from the turbine, will be able to fly above the weather at altitudes in the neighborhood of 20 000 feet. Safety will be improved by mounting the engine in the rear of the plane away from both passengers and fuel tanks.

Bachle feels that the turbo-prop offers possibilities for light aircraft, while air bleed turbines, from which useful power is derived in the form of compressed air, may also have applications for helicopters by channelling thrust to the rotor tips. Pure jet reaction type turbines, he said, do not have sufficient propulsive efficiency at low speeds for successful application to personal aircraft. American Aviation Daily, November, 1951.

WENATCHEE CLAIMS CLOSEST-IN AIRPORT

Wenatchee, Wash., claims to be the first city of its size to have a useable airport only a block from the center of town. The new airport was constructed by a group of volunteer workers using donated equipment. American Aviation Daily, November, 1951.

NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE: "To foster aviation as an industry, as a mode of transportation for persons and property and as an arm of the national defense, to join with the Federal Government and other groups in research, development, and advancement of aviation; to develop uniform aviation laws and regulations; and to otherwise encourage co-operation and mutual aid among the several states."

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DEFENSE

This is a true story of how a California-built fighter plane actually intercepted and destroyed an approaching bomber made completely invisible by darkness in the nation's first real test of its coastal defense network.

It was early morning one day last winter. Five miles above the Gulf of Mexico a lone four-engine bomber banked sharply north and droned steadily toward the American mainland. Somewhere along the lonely Gulf coast a sentry rubbed his eyes, weary from staring into a green-glowing radar screen, and watched intently as a faint blob of light on the scope wavered and grew steadily brighter. Without looking up, he flicked on a transmitter switch and reached for the phone.

At Eglin Air Force base near Tallahassee, pilots scrambled for their planes, and within minutes sleek jet fighters were roaring out to sea in a steep climb. Pilot Ralph Williams, flying in one jet with a special hood that cut off his vision in his plastic canopy, adjusted his headphones as a ground station voice crackled. "Ground Control Intercept to fighters. Climb to 30,000. Target bearing 225 from your position."

Flying on instruments, he swung the plane to his target course. In the rear cockpit, radar operator George West snapped switches and leaned over his scope. Again the radio voice: "GCI to fighters. Change course to 262 and climb to 33,000. Target will be in your radar range in six minutes." West stared into his scope as a tiny pip appeared in the straight line of light across its face. "It's our boy!" He turned knobs and made adjustments until the "blip" of light stood tall and clear in the center of the line. "Okay, turn your target scope on now."

Williams looked at his own radar, showing a bright green bull's-eye with a smaller dot of light swinging across it. That little dot was the bomber, somewhere ahead but invisible except through the electronic "eye." Williams guided the plane slowing around until the dot stood in the center of the bull's-eye. He held the target in the circle and watched until he knew they were in gun range. He pushed a button and fired a long blast from his four machine guns and pulled his plane up in a screaming climb to miss the bomber he couldn't see but knew was in front of him.

The bomber rolled and staggered with hits in several spots. The fighter banked sharply and roared in for two more bursts. Flames shot from the bomber's left inboard engine, and the big plane spiraled out of control, exploded, and crashed into the ocean miles short of the shoreline it had aimed to cross.

The bomber was a radio-controlled American B-17, flying without crew. The fighter was a Lockheed F-49, first plane in history to intercept and destroy a bomber its pilot couldn't see. The whole incident was a test, with the pilot handling take-off, interception and landing by instruments in a blacked-out cockpit. But the experiment proved that F-94 can accomplish the mission it was built for: protection of the continental United States against invading enemy bombers in full vision or in utter darkess or sub-zero weather.—Lockheed Stockholders Newsletter

PERSONAL TYPE PLANES LEAD IN CIVIL AVIATION ACTIVITY

In 1949 the so-called personal type aircraft flew more than three times as many hours as did the scheduled airlines of the nation, according to CAA figures. The non-carrier planes flew about eleven million hours. Of these, about one-quarter were related to what is termed personal use. The balance was related to business, professional or various revenue producing activities. Of these eleven million hours, about three-fourths of a million hours was in multi-engine and all of the balance in single engine aircraft.

In spite of this many are inclined to think only of big airplanes when U. S. civil aviation is mentioned. This seems to be especially true of many of those formulating national civil aviation policy. Let us not forget that the CUB in the cow pasture is still just as much a part of civil aviation as is the Dizzy 60 on the terminal ramp.—Oklahoma Aviation Commission News, October, 1951

ARGENTINE TO USE MODIFIED C-47 IN ANTARCTIC RECONNAISSANCE

Argentine Air Force plans to extend reconnaissance and mercy flight into Antarctica near the South Pole in a Douglas C-47 modified and tested for the Argentine government by Transocean Air Lines. Modification consisted primarily of installation of skis, JATO equipment and additional fuel tanks. The long range fuel capacity of the C-47 doubles the plane's range, increasing it to 18 hours, or about 2,800 miles. This means the plane could take off from Argentine polar bases and make a round trip flight to the South Pole.

In tests conducted at Oakland Municipal Airport, the JATO-equipped transport took off at a 40 degree angle with a run of less than 500 feet. Following tests, the plane was flown to Alaska by Argentine Air Force officers where the pilots will receive training by USAF officers in landings and JATO operations from snow covered landing strips.—American Aviation Daily, November, 1951

F-86 HAS 10-1 EDGE OVER MIG-15 IN KOREAN FIGHTING

Despite widespread alarm over the reported performance of the Russian MIG-15 in Korea, the North American F-86 holds a 10-1 combat advantage over the MIG, latest USAF air loss summaries reveal. From the start of the war until October 23, F-86's had destroyed 71 MIG-15's in air combat and had accounted for another 13 probables. During the same period, the MIG's shot down seven F-86's and damaged another seven. The 10-1 record was compiled by the F-86's despite the fact that the Reds usually enjoy a 3-1 to 4-1 numerical superiority in air battles. More thorough training and better armament and related equipment in the F-86 are cited for reasons.

During the June-October period, the USAF lost 22 jet fighters of all types in air combat, compared with 1[illegible] Red jets destroyed and another 45 probably destroyed, an advantage ration in this category of almost eight to one.

Total aircraft losses during the reporting period, including bombers and noncombat types, show only a slight advantage for the USAF: the USAF lost 325 planes compared with 342 Red aircraft, including destroyed and probables.—American Aviation Daily, November, 1951

BROWN NEW NASAO PRESIDENT

C. E. A. Brown, director of the Ohio Aviation Board, is the new president of the National Association of State Aviation Officials, succeeding Crocker Snow, Massachusetts aviation director. Other officers elected at the annual meeting in Tucson are:

Joseph K. McLaughlin, Illinois, 1st vice president; Frank Wiley, Montana, 2nd vice president; Hubert H. Star, West Virginia, 3rd vice president; L. V. Hanson, South Dakota, treasurer; A. B. McMullen (re-elected), executive secretary. Regional directors were chosen as follows:

Region 1, Frank E. Kimble, chief, New Jersey Bureau of Aeronautics; Region 2, Waldron F. Schanz, Florida State Aviation Supervisor; Region 3, Thomas K. Jordan, director, Wisconsin Aeronautics Commission; Region 4, T. B. Herndon, chief, aeronautics division, Department of Public Works, Louisiana; Region 5, Glenn Taber, director, aviation division, Kansas Industrial Development Commission; Region 6, Harlon Bement, director, Utah Aeronautics Commission; Region 7, G. S. Schwamm, director, Department of Aviation, Anchorage, Alaska.

SNOW URGES NASAO TO WORK ON EIGHT ITEM "UNFINISHED BUSINESS" AGENDA

In his report to the annual convention of the National Association of State Aviation Officials at Tucson, Arizona, Crocker Snow of Boston, retiring president, stressed eight items of "unfinished business" which he urged NASAO to take a part in settling. These were:

(1) A lucid enunciation by the Civil Aeronautics Board of what kinds of air transport is recognized and how they should be separated.

(2) Effective action with regard to the noise disturbance problem at busy airports; action that will be fair both to the public and to the air transport industry.

(3) Renewed efforts toward simplifying air-worthiness regulations for light planes.

(4) Adoption of a sensible airman training program to mitigate the vital shortage of airmen and aircraft technicians.

(5) Vigilance to see that necessary restrictions promulgated for the control of civil aircraft in the event of a military emergency "are reasonable and will permit the maximum preservation of the civil flying which is indirectly so valuable to military aviation and directly to our agricultural and manufacturing economy."

(6) A plan which will encourage civil aviation to debate fully its problems in private and, when agreement has been reached on any particular issue, will provide a method to permit aviation's case to be pressed wherever and whenever necessary with one coordinated voice."

(7) Further action, particularly on the part of the United States Government, to simplify border crossings for aircraft.

(8) Renewed efforts to persuade Congress to appropriate money for civil aircraft prototype development.—American Aviation Daily, October, 1951.

FIRST FLIGHT TEST OF DIESEL EQUIPPED TAYLORCRAFT COMPLETED

First official flight test of the Diesel Power, Inc. 125 H.P. diesel engine in a standard Taylorcraft lightplane grossing 1,334 pounds was made last week at Pittsburgh Airport. The diesel was operated on kerosene with 43.0 gravity, a common variety. Fuel consumption, company reports, was four gallons per hour. Engine speed for take-off horsepower of 125 H.P. was 2,600 revolutions per minute. Cruising was at 2,350 rpm at approximately 100 horsepower.

Plans for production of the light diesel engine in a horsepower range beginning with the present 10-125 horsepower version are now being prepared. Advantages of the Diesel Power aircraft engine, pointed out by L. M. Barton, president of the company, include economy of operation and maintenance, improved acceleration, reduced fire hazard, elimination of carburetor icing, complete elimination of the ignition system and related radio interference problems, and about three times the normal range of gasoline engines.—American Aviation Daily, October, 1951

TU-10 BOMBER IN RUSSIAN SQUADRON SERVICE

The Russian TU-10 bomber has made its appearance in squadron service with the Soviet Air Force. The plane comes in three versions: the TU-10A, a tactical bomber; the TU-10B, a radar-equipped trainer; and the TU-10C, a trainer without radar equipment. The basic TU-19 is a twin-jet bomber with a straight wing and swept-back tail surfaces. Performance estimates include a service ceiling of 46,000 feet and a speed of 545-570 miles per hour at altitude.—American Aviation Daily, October, 1951

ENGINEER DESIGNS

A University of Minnesota engineer, K. G. Anderson, said today he has designed a new type tailless helicopter which can outperform existing models in service ceiling, speed and range. Anderson hopes to have a flying model of the plane ready by spring. He claimed for it a service ceiling of 15,000 feet, a straight vertical climb to 6,000 feet and an endurance of eight hours or a range of 500 miles. He estimated that in full production the plane could sell for about $1[illegible],000.—American Aviation Daily, November, 1951.

A Northrop Aircraft, Inc., five man crew made an engine change on an F-89 in 20 minutes and 50 seconds in a time trial run at Edwards Air Force Base in compliance with qualification test requirements outlined by Air Force specifications for power plant interchangeability. The rapid change, which is believed to be a record for a power plant change in a jet aircraft, was made with standard mechanic's tools plus the special tools furnished with each F-89 upon Air Force delivery. Standard ground handling equipment was used. Northrop's F-89 Scorpion has two Allison J-35-A-21 turbojets with afterburners.—American Aviation Daily, November 1951

Helicopters in Korea are carrying metal capsules attached to their sides for easier transport of wounded litter cases. Capsules permit medical corpsmen, riding in the fuselage of the helicopter, to administer blood plasma to the wounded during flight from the front lines to rear aid stations.—American Aviation Daily, November, 1951.

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